

## **R E M A R K S**

Claims 1-33 are pending and have been examined. The particular topics in the office action are addressed as follows.

Claim 1-7, 9 and 11-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Li et al (US 6,119,162). The rejection is respectfully traversed. The arguments from Amendment B are incorporated herein but are not repeated. The Examiner's specific "Response to Remarks/Arguments" is addressed herein.

The response to arguments does not provide a basis to sustain the rejection because Li's computers 12 are not properly compared to the claimed "separate residential units or business units." Responding to the amendment to claims 1, 13 and 22, the Examiner points to Li column 4, lines 33-39. The LAN 10 in Li or its computers 12 cannot correspond to separate residential or business units in the claims. It is conceded that Li discloses a LAN 10 with multiple computers 12 and a network Hub. The computers 12 share a connection to an ISP 16 and best server is selected, and one portion of Li states that alternatively "each computer may route network traffic through more than one active server to increase network bandwidth." C12, L29-37. Most of Li's disclosure concerns altering an existing LAN to be able to pick a best server and use that server as a gateway device.

Pointing to the LAN of Li does not address the amended independent claims. The LAN in Li comprises a network of computers. The Examiner has previously (correctly) referred to the clients in Li's LAN as the computers 12. That is correct. In contrast, the

amendments to each of the independent claims requires each client to be “separate residential units or business units”. Thus, resources of separate residential and or business units (each of which may include its own LAN, see, e.g., claim 29) are combined. A computer 12 or LAN 10 in Li is not properly compared to a “separate residential unit” or “business unit”.

To the extent that the Examiner is arguing that a computer 12 is properly compared to a “residential unit” or “business unit”, such an interpretation is incorrect from the language of the claims themselves or from a reference to the specification, which does not permit such a comparison. “The broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach.” MPEP §2111. Claim 29 requires, for example, that one or more of the business or residential units include “one or more computers interconnected by a local area network. Thus, the residential unit or business unit can’t be a computer, but the residential units and business units can each include a separate LAN. As for the language of the specification, page 4 states “clients are residential units, such as houses or apartments. A high percentage of the units have a form of wired Internet access. In some preferred embodiments, each client has a wired Internet connection.” Thus, through the invention, resources of separate houses and apartments can be leveraged.

Claim 1 requires sharing communication resource connection of a network of “separate residential units or business units.” Claim 13 requires pooling the Internet access connections of a community of “separate residential units or business units.” Claim 22

requires selecting from communication resources of a community “separate residential units or business units.” The LAN 10 of Li only includes a network of computers 12, not separate residential or business units. No resource sharing of separate residential or business units is suggested by Li. For at least these reasons the rejection of claims 1, 13 and 22 should be withdrawn.

Li merely improves the operation of existing private LANs (particularly a home LAN)(C3, L10-35 & 55-62), and is particularly concerned with home LANs that don’t benefit from network administrators and other resources available to business LANs, to avoid difficulties when a server through which Internet access is provided fails. C3, L10-35 & 55-62. Nothing in Li joins a network of separate residential units or business units. According to claims 1, 13 and 22 a network of clients is formed that combines resources of separate residence or business units.

Regarding claim 2 (and claim 4), the Examiner points to column 6 of Li, which states that Li’s LAN can be formed with a variety of network protocols (including wireless LANs). Though Li’s clients are computers 12 connected by a resource, Li does not disclose or suggest connecting separate client business or residence units. Even if the network is formed with telephone lines or power lines in Li, this is a mere disclosure of a network of computers 12 with a particular network fabric. Column 6 merely points out alternative connection schemes to running dedicated Ethernet wires at a location. Nothing in column 6 discloses or suggests forming a wireless network of separate business or residence units. Li

concerns a single LAN in a residence or business. The computers in a single LAN of Li (as pointed out by the Examiner) may be connected by wireless communications, but Li and the art of record fail to suggest using wireless communications to form a network of multiple clients that are residence or business units.

The response to arguments is not believed to have addressed claims 5, 11 and 12. Li fails to disclose features of these claims. In the transition between column 4 and 5 Li's LAN discusses a proxy, but this proxy is simply provided to enable multiple computers 12 to access one ISP, which is the normal operation of a home router, for example. This does not meet any other these claims. Claim 5 requires a proxy outside the network of business or residential units. Li's proxy would be accessed through the LAN medium (such as Ethernet cable or home phone lines) as opposed to being accessed through the Internet (claim 11) or at an ISP (claim 12). One advantage of using an external proxy is to protect the individual client communications (P15, L27 – P16, L4). Li has no such concerns with a LAN that is in a residence. Li is concerned with improving a private LAN in a single residence, for example, and there is not concern with protection of the client communications.

Claims 8, 13-19 and 21-26 & 28-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li in view of Vange (US 20020002618 A1). The rejection is respectfully traversed. The previous remarks concerning claims 8, 13-19 and 21-26 are reasserted but not repeated. Applicants address specific portions of the "Response to Arguments" concerning those claims. Applicants also address the Examiner's rejection of

claims 28-33, which was first stated in the final office action.

First, addressing the continued rejection of claims 8, 13-19 and 21-26, the examiner discusses Vange's environment 100 and different networks 102, 103 and 104, concluding that "computing environment 100 in which the present invention may be implemented." This clearly indicates a hindsight reconstruction. Applicant's previous remarks concerned reasons why Vange suggests no modifications to Li that would suggest the invention. The response to arguments misconstrues the points made previously, which were directed to the different goals and operations of Li and Vange. The proper exercise is to consider what Vange suggests *vis a vis* Li. The answer is nothing, because Vange concerns "last mile" technology implemented by cable companies, cell phone companies and the like [0010], whereas Li concerns unsophisticated private LANs.

Li provides an automatic scheme to choose an active server in a LAN that lacks the benefit of sophisticated IT support. Vange specifically concerns the "last mile" network architecture used to provide data traffic to end users. [0017] As pointed out by the Examiner, the front-end 201 concerns a web site, not a LAN of clients as in Li. No artisan would look to Vange to improve the server selection scheme in Li.

The response to arguments also overlooks the difference between a prioritization scheme (as in Vange) compared to server selection for a LAN (as in Li). Vange's scheme is implemented by commercial servers that are attempting to download data with a high quality of service scheme. Li is concerned with appointing a server in a private

LAN. Vange permits entities outside of the last mile provider system (completely unrelated to Li's private household LAN) to have control over the priority of packets within the last mile system. [0018].

Vange's front end server interfaces to the last-mile communication system and conducts prioritization and buffering to reorder requests before transmission or to reorder incoming traffic from the internet to the last-mile. [0020]. Vange's system is concerned with e-commerce and providing high quality service for particular types of communications that most benefit from quality of service guarantees. [0008]-[0010]. Li, in contrast, is a household LAN that has automatic server selection software. C3, L55-62.

As another point, the Examiner states "Environment 100 includes a plurality of local networks such as Ethernet network 102, FDDI network 103 and Token Ring network 104. Essentially, a number of computing devices and groups of devices are interconnected through a network 101. LANs 102, 103 and 104 may be implemented using any available topology and may implement one or more server technologies including, for example UNIX, Novell, or Windows NT networks, or peer-to-peer type network" This is detailed in [0026] but offers no suggestion of the present invention. The network 101 is a "public network such as the Internet". [0026]. This bears no resemblance to the claimed invention. The present invention would, for example, connect separate LANs 102, 103, 104 together wirelessly so that their separate connections (through routers 109) could be shared. The portion of Vange pointed to by the Examiner shows nothing more than multiple LANs having their own ISP

connection. There is no suggestion of forming a network of the multiple LANS independently to leverage the ISP connections of the separate LANS. Such a goal of the invention can advantageously be accomplished with involving a typical service provider.

Regarding claim 15, the Examiner points to Li, but there is no outside proxy server in Li. Li only contemplates using one of the servers on the LAN as a proxy, and in that case all of the servers must act as a proxy. C8, L30-37. The Examiner alleges an outside proxy by stating “Li disclose the limitation proxy server e.g. see coln:4lines 61-67 to coln:5lines 1-11”. The portions of column 4 and 5 cited merely disclose that there is a proxy server as part of the LAN, as is necessary for any LAN to use a single account on an ISP. “proxy server software, permits all of the computers on LAN 10 to share public telephone line 18 and access to ISP 16.” As discussed above, this is the function of a standard router, but does not address the feature of claim 15 that requires “providing a proxy between the device outside of the network of clients and a client requesting a client session.”

Regarding claim 22, the Examiner’s response to arguments discussed this claim along with claims 1 and 13. Applicant’s further response is discussed above.

Regarding claims 28, 30, and 32 the Examiner relies upon Vange for suggesting encryption in Li. This is not supported by the teachings of the references. Vange’s front end server has a need for encryption because it is an access point for client-side communications for shared last mile connections. [0032]. Li concerns a private LAN. C3, L10-35 & 55-62 A private LAN does not have the same security concerns as a front end

server for a last mile connection. Vange does not suggest encryption of traffic in a private LAN such as Li's, so the rejection should be withdrawn.

Regarding claims 29, 31 and 33, the Examiner points to the networks 102, 103, and 104. However, these networks are not networked together to share a resource connection. The portion of Vange pointed to by the Examiner shows nothing more than multiple LANs having their own ISP connection. There is no suggestion of forming a network of the multiple LANs independently to leverage the ISP connections. It is noted that the resource connection in Vange is through the routers 109, and there is no suggestion or disclosure, for example, of the networks 102 and 103 being networked together to share their connections through the routers 109. This is the nature of the claim, when properly construed as multiple business or residential units that each have their separate resource connections and each of the separate units comprises its own LAN.

The separate rejections of claims 10, 20 and 27 rely upon the addition of Prokop (US 6,870,848). The rejections are respectfully traversed.

The response to arguments does not fairly address Applicant's previous arguments. Prokop concerns a telephone network, and Li a private household LAN. Call sessions, CPC systems, etc. pointed to the examiner have absolutely no commonality of purpose, hardware, sophistication, or operation with Li, and Li is not concerned with a capability to provide "a relatively small number of telephone numbers". Prokop offers nothing to suggest modifying the proxy services of Li.



For all of the above reasons, applicant requests reconsideration and allowance of the application. The separate patentability of dependent claims not discussed is maintained. Should the examiner believe that outstanding issues exist and that a telephone conference would aid prosecution, the examiner is invited to contact the undersigned attorney at the below-listed number.

Respectfully submitted,

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